On a New Sponge, *Tethyopsis columnifer.* By C. Stewart, Esq., F.L.S., Curator of St. Thomas's Hospital Museum, with Plate XVIII.

For the opportunity of examining and describing this interesting sponge I am indebted to the kindness of my friend Prof. W. H. Flower, of the Royal College of Surgeons.

I found it in a jar containing marine animals collected on the coast of the Philippine Islands by the late Mr. Cuming; in the absence of further evidence this may be taken as its probable habitat.

The sponge consists of an irregular hemispherical basal portion, a little less than an inch-and-a-half in diameter, thickly incrusted with pieces of shells and small stones; its flat surface has either been torn off from a rock or from a continuation of its substance completing the sphere; this surface shows long spicula radiating from the centre imbedded in firm sarcode, and supporting on their distal extremities a white superficial layer, usually about the fortieth of an inch thick, but frequently greatly increased as the interstices between the extraneous substances are filled by it; the torn orifices of four canals may also be seen.

From the convex surface of this, the basal portion, arises a stem-like prolongation three-tenths of an inch in diameter and one inch and two-thirds in length, it is free from any foreign particles except a few small grains of sand at its extremity, but is roughened by numerous elevations of the dermal membrane arranged in a right-handed spiral of half a turn, which is not always strongly marked.

On section it shows a dense axis of spicula occupying a third of its diameter, from which laterally flattened processes extend to support the dermal membrane, which is raised by them into the elevations already alluded to; the very large intermarginal cavities thus formed communicate freely throughout the entire stem, and with the canals of the basal portion of the sponge.

The large spicula of the basal mass are of the form termed "expando-ternate" by Dr. Bowerbank; the long shaft of the spicula reaches from the dermal membrane to near or quite to the centre of the sponge, where it terminates in a sharp point, its ternate distal extremity supporting the dermal membrane; mixed with these are a few of the same size but pointed at both ends. The sarcode spicula are stellate and about the 1200th of an inch in diameter. The dermal mem-

brane of the base readily tears into fine fibres; it is densely crowded with stellate spicula of about a fourth the size of those of the sarcode, their radii being very short.

The dermal membrane of the stem is very thin but similar in structure. The axis of the stem is formed by a direct continuation of the large spicula of the basal part of the sponge immediately beneath the origin of the stem; they are arranged in a similar manner with their long pointed shafts directed downwards, their triradiate distal extremities assuming an asymmetrical character, one of the three terminal radii of each spiculum being greatly prolonged to form with other similar prolongations derived from its neighbouring spicula a flattened band which supports the dermal membrane.

The principal interest attached to this sponge is, that it consists of two parts extremely different in external appearance, and also in the aspect which they present on section, the spicula, however, being of the same type throughout the entire sponge, and only slightly altered to perform a special purpose.

I have been unable to detect either pores or oscula, probably owing to their rapid closure on removal of the sponge from the water.